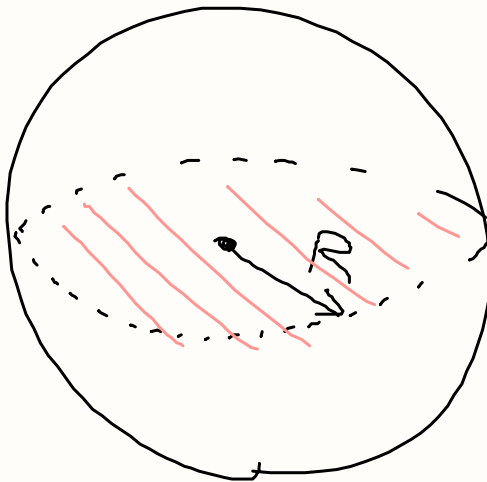
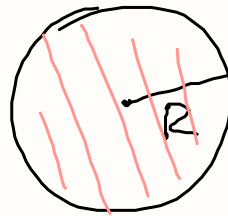


SURFACE AREA OF A SPHERE

$$A_0 = \pi R^2$$

CIRCLE



$$A = 4\pi R^2$$

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GIVEN: $A_0 = 64\pi \text{ cm}^2$

FIND: VOLUME

$$V = \frac{4}{3}\pi R^3$$

$$A = 4\pi R^2$$

$$\cancel{64\pi} = \cancel{4\pi} R^2$$

$$V = \frac{4}{3}\pi \cdot 4^3 =$$

$$\frac{64}{4} = \frac{4R^2}{4}$$

$$= \frac{4 \cdot \pi \cdot 64}{3} =$$

$$16 = R^2$$

$$= \frac{256\pi}{3} = \underline{85.3\pi} \approx \underline{85.3\pi}$$

$$R = \sqrt{16} = 4$$

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given	$V = 288\pi \text{ cm}^3$
Find	A

$$A = 4\pi R^2$$

$$A = 4\pi \cdot 6^2$$

$$A = 4\pi \cdot 36$$

$$\underline{A = 144\pi \text{ cm}^2}$$

$$V = \frac{4}{3}\pi R^3$$

$$288\pi = \frac{4}{3}\pi R^3$$

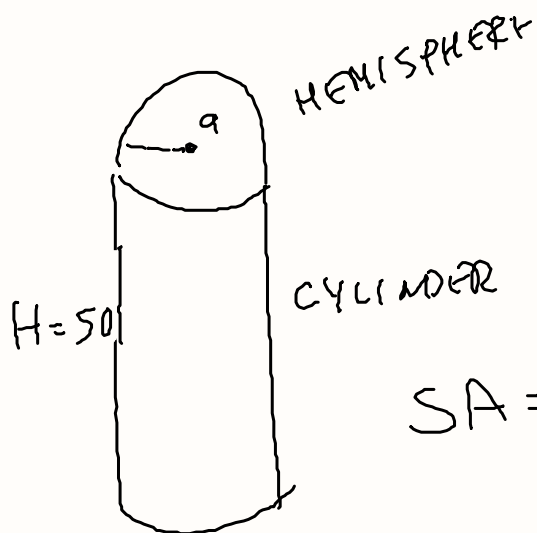
$$\frac{3}{4} \cdot 288 = \frac{4}{3} R^3 \cdot \frac{3}{4}$$

$$\frac{3}{4} \cdot 288 = R^3$$

$$216 = R^3$$

$$R = 6$$

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$$\begin{aligned} SA &= 2\pi r^2 + 2\pi rh \\ 2\pi r^2 + 2\pi r \cdot 50 \\ 2\pi \cdot 81 + 2\pi \cdot 9 \cdot 50 \\ 2\pi \cdot 81 + 2\pi \cdot 450 \\ 533 \cdot 2\pi \\ 1066\pi \end{aligned}$$

$$SA = 4\pi r^2$$

$$\begin{aligned} 4\pi r^2 \\ 4\pi \cdot 81 \end{aligned}$$

$$\begin{array}{r} 1066\pi \\ + 162\pi \\ \hline 1228\pi \end{array}$$

1228π

$$\frac{324\pi}{2} = 162\pi$$

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